COMPOSITION CONTAINING NATURAL PLANT EXTRACT AS ACTIVE INGREDIENT, EXTERNAL SKIN PREPARATION COMPRISING THE SAME, COSMETIC PREPARATION COMPRISING THE SAME, AND PHARMACEUTICAL PREPARATION COMPRISING THE SAME

TECHNICAL FIELD

The present invention relates to a composition containing natural plant extracts as active ingredients, an external skin preparation including the same, a cosmetic preparation including the same, a cosmetic preparation including the same, and a pharmaceutical preparation including the same. More particularly, the present invention relates to a composition containing, as active ingredients, a *Cymbidium kanran* extract; and at least one selected from the group consisting of a green tea extract, a *Camellia japonica* extract, a *Bletilla striata* extract, and an *Opuntia Coccinellifera* extract to have antioxidant and anti-inflammatory effects.

BACKGROUND ART

Inflammatory skin diseases include atopic dermatitis, contact dermatitis, seborrhoic dermatitis, acne, and the like.

In general, the mechanism or irritation response or inflammation involves various cytokines released by human keratinocytes or Langerhans cells in response to external

substances. The cytokines, accelerators of the immune system in human body, are essential in the process of skin irritation or regional inflammation (J Appl Toxicol 16:65-70, 1996). In fact, it has been reported that interleukin-6 (IL-6), interleukin-1 (IL-1), or tumor necrosis factor alpha (TNF-α) are increased in the case of irritant contact dermatitis (Contact Dermatitis 35:355-60, 1996, Dec).

Thus, there is a demand for developing a composition that relatively has a good antioxidant effect to remove active oxygen and a good anti-inflammatory effect to alleviate inflammation in the skin and contains natural plant extracts as active ingredients, relatively causing no side effect in comparison to hormone preparations.

Prior Documents

Patent Documents

(Patent Document 1)

Korean Patent Laid-Open Publication No. 10-2013-0031988 (April 1, 2013)

DISCLOSURE OF INVENTION

It is an object of the present invention to provide a composition containing a plurality of natural plant extracts as

active ingredients to have antioxidant and anti-inflammatory effects, and an external skin preparation, a cosmetic preparation and a pharmaceutical preparation including the composition.

The present invention provides a composition containing, as active ingredients, a *Cymbidium kanran* extract; and at least one selected from the group consisting of a green tea extract, a *Camellia japonica* extract, a *Bletilla striata* extract, and an *Opuntia Coccinellifera* extract.

The present invention also provides an external skin preparation including the composition.

The present invention also provides a cosmetic preparation including the composition.

The present invention also provides a pharmaceutical preparation including the composition.

EFFECTS OF INVENTION

The composition of the present invention contains at least two natural plant extracts as active ingredients and thus relatively has a good antioxidant effect to remove active oxygen and a good anti-inflammatory effect to alleviate inflammation in the skin in comparison to a composition containing a single natural plant extract as an active ingredient.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is an illustration showing the TNF-α evaluation results for the respective compositions according to Comparative Examples 1 to 5 and Examples 1 to 5 in Experimental Example 1.

FIG. 2 is an illustration showing the IL-6 evaluation results for the respective compositions according to Comparative Examples 1 to 5 and Examples 1 to 5 in Experimental Example 2.

BEST MODES FOR CARRYING OUT THE INVENTION

The present invention provides a composition containing, as active ingredients, a *Cymbidium kanran* extract; and at least one selected from the group consisting of a green tea extract, a *Camellia japonica* extract, a *Bletilla striata* extract, and an *Opuntia Coccinellifera* extract.

In present invention, the *Cymbidium kanran* refers to the *Cymbidium kanran* plant that is a species of Orchidaceae.

In present invention, the green tea refers to a product made from the buds or leaves of the *Camellia Sinensis* plant by exposing the oxidizing enzyme present in the tea leaves to heat or steam to activate the enzyme.

In present invention, the *Camellia japonica* refers to the *Camellia japonica* plant that is a species of tea tree.

In present invention, the *Bletilla striata* refers to the *Bletilla striata* plant that is a species of Orchidaceae.

In present invention, the *Opuntia Coccinellifera* refers to the *Opuntia Coccinellifera* plant that is a species of Cactaceae.

The *Cymbidium kanran* extract, the green tea extract, the *Camellia japonica* extract, the *Bletilla striata* extract, and the *Opuntia Coccinellifera* extract may be made according to the respective preparation methods known in the related art, that is, using a known solvent under the known temperature and pressure conditions. Preferably, each extract may be extracted with an extracting solvent selected from the group consisting of water, an anhydrous or hydrous lower alcohol having 1 to 4 carbon atoms, acetone, ethylacetate, butylacetate, glycerin, 1,3-butylene glycol, 1,2-propylene glycol, and 1,3-propylene glycol.

The *Cymbidium kanran* extract may be extracted from the whole plant of *Cymbidium kanran*. The *Bletilla striata* extract may also be extracted from the whole plant of *Bletilla striata*.

The green tea extract may be extracted from the leaves of the *Camellia Sinensis* plant, and the *Camellia japonica* extract may be extracted from the leaves of the *Camellia japonica* plant.

The *Opuntia Coccinellifera* extract may be extracted from the fruit of the *Opuntia Coccinellifera* plant.

In one embodiment of the present invention, the composition contains the *Cymbidium kanran* extract and the green tea extract as active ingredients.

As containing a mixture of the *Cymbidium kanran* extract and the green tea extract, the composition using at least two natural plant extracts as active ingredients can maximize the enhancement of its antioxidant effect.

In one embodiment of the present invention, the composition contains the *Cymbidium kanran* extract and the *Camellia japonica* extract.

As containing a mixture of the *Cymbidium kanran* extract and the *Camellia japonica* extract, the composition using at least two natural plant extracts as active ingredients can maximize the enhancement of its anti-inflammatory effect in the aspect of TNF-α inhibition.

In one embodiment of the present invention, the composition contains the *Cymbidium kanran* extract and the *Bletilla striata* extract.

As containing a mixture of the *Cymbidium kanran* extract and the *Bletilla striata* extract, the composition can relatively maximize the enhancement of its anti-inflammatory effect in the aspect of TNF-α inhibition in comparison to the composition containing a single natural plant extract.

In one embodiment of the present invention, the composition contains the *Cymbidium kanran* extract and the *Opuntia Coccinellifera* extract.

As containing a mixture of the *Cymbidium kanran* extract and the *Opuntia Coccinellifera* extract, the composition can relatively maximize the enhancement of its anti-inflammatory effect in the aspect of IL-6 inhibition in comparison to the composition containing a single natural plant extract.

In one embodiment of the present invention, the composition contains the *Cymbidium kanran* extract and the green tea extract.

As containing a mixture of the *Cymbidium kanran* extract and the green tea extract, the composition containing two natural plant extracts as active ingredients can maximize TNF-α and IL-6 inhibition to maximize its anti-inflammatory effect.

In one embodiment of the present invention, the composition contains, as active ingredients, the green tea extract, the *Cymbidium kanran* extract, the *Camellia japonica* extract, the *Bletilla striata* extract, and the *Opuntia Coccinellifera* extract.

By containing a mixture of the active ingredients, that is, the green tea extract, the *Cymbidium kanran* extract, the *Camellia japonica* extract, the *Bletilla striata* extract, and the *Opuntia Coccinellifera* extract, the composition can maximize its anti-inflammatory and antioxidant effects.

In one embodiment of the present invention, the composition includes, with respect to the total weight of the composition, 0.0001 wt.% or greater and 10 wt.% or less of the *Cymbidium kanran* extract, more specifically, 0.01 wt.% or greater and 5.0

wt.% or less of the *Cymbidium kanran* extract. The content of the *Cymbidium kanran* extract 0.0001 wt.% or greater can provide antioxidant and anti-inflammatory effects from the *Cymbidium kanran* extract. The content of *Cymbidium kanran* extract 10 wt.% or less is even more efficient by relatively enhancing the antioxidant and anti-inflammatory effects from the *Cymbidium kanran* extract in relation to the content increment.

In one embodiment of the present invention, the composition includes, with respect to the total weight of the composition, 0.0001 wt.% or greater and 90 wt.% or less of the green tea extract, more specifically, 0.01 wt.% or greater and 90 wt.% or less of the green tea extract. The content of the green tea extract 0.0001 wt.% or greater can provide antioxidant and anti-inflammatory effects from the green tea extract. The content of green tea extract 90 wt.% or less is even more efficient by relatively enhancing the antioxidant and anti-inflammatory effects from the green tea extract in relation to the content increment.

In one embodiment of the present invention, the composition includes, with respect to the total weight of the composition, 0.0001 wt.% or greater and 90 wt.% or less of the *Camellia japonica* extract, more specifically, 0.01 wt.% or greater and 90 wt.% or less of the *Camellia japonica* extract. The content of the *Camellia japonica* extract 0.0001 wt.% or greater can provide

antioxidant and anti-inflammatory effects from the *Camellia japonica* extract. The content of *Camellia japonica* extract 90 wt.% or less is even more efficient by relatively enhancing the antioxidant and anti-inflammatory effects from the *Camellia japonica* extract in relation to the content increment.

In one embodiment of the present invention, the composition includes, with respect to the total weight of the composition, 0.0001 wt.% or greater and 10 wt.% or less of the *Bletilla striata* extract, more specifically, 0.01 wt.% or greater and 5 wt.% or less of the *Bletilla striata* extract. The content of the *Bletilla striata* extract 0.0001 wt.% or greater can provide antioxidant and anti-inflammatory effects from the *Bletilla striata* extract. The content of *Bletilla striata* extract 10 wt.% or less is even more efficient by relatively enhancing the antioxidant and anti-inflammatory effects from the *Bletilla striata* extract in relation to the content increment.

In one embodiment of the present invention, the composition includes, with respect to the total weight of the composition, 0.0001 wt.% or greater and 90 wt.% or less of the *Opuntia Coccinellifera* extract, more specifically, 0.01 wt.% or greater and 90 wt.% or less of the *Opuntia Coccinellifera* extract. The content of the *Opuntia Coccinellifera* extract 0.0001 wt.% or greater can provide antioxidant and anti-inflammatory effects from the *Opuntia Coccinellifera* extract. The content of *Opuntia*

Coccinellifera extract 90 wt.% or less is even more efficient by relatively enhancing the antioxidant and anti-inflammatory effects from the *Opuntia Coccinellifera* extract in relation to the content increment.

In one embodiment of the present invention, the composition is used as an antioxidant composition. The antioxidant composition uses at least two extracts as active ingredients to eliminate or inhibit the free radicals in the skin.

In one embodiment of the present invention, the composition is used as an anti-inflammatory composition. The anti-inflammatory composition uses at least two extracts as active ingredients to inhibit or reduce interleukin-6 (IL-6), interleukin-1 (IL-1) or tumor necrosis factor alpha (TNF-α).

The present invention provides an external skin preparation including the above-specified composition.

The external skin preparation inclusively refers to all the preparations applied to the exterior of the skin and includes any preparation administered by absorption through the skin, that is, any transdermal preparation.

In one embodiment of the present invention, the skin includes skins around the eyes.

In one embodiment of the present invention, the specific formulations of the transdermal preparation include, but are not limited to, powder formulation for external use, tablet

formulation for external use, liquid formulation for external use, patch, micro needle, ointment, or suppository.

The present invention provides a cosmetic including the above-specified composition.

The cosmetic may be formulated using a cosmetologically or dermatologically acceptable medium or base. The cosmetic refers to any kind of cosmetic formulation suitable for topical application, including, for example, solution, gel, solid, paste anhydrous product, oil-in-water type emulsion, suspension, microemulsion, microcapsule, micro-granules, ionic (liposome) or non-ionic vesicular dispersant, cream, skin toner, lotion, powder, ointment, spray, or concealer. The cosmetic may also be provided in the form of a foam composition or an aerosol composition additionally containing a compressed propellant. The cosmetic may be prepared according to the known method in the related art.

In addition, the cosmetic may contain lipid substances, organic solvents, solubilizers, concentrating agents, gelling agents, softening agents, antioxidants, suspending agents, stabilizers, foaming agents, flavoring agents, surfactants, water, ionic or non-ionic emulsifiers, fillers, sequestering agents, chelating agents, preservatives, vitamins, blocking agents, wetting agents, essential oil, dyes, pigments, hydrophilic or lipophilic activating agents, lipid vesicles, or any other adjuvants generally used in the cosmetic or dermatologic fields,

such as other ingredients typically used in the cosmetics. The adjuvants may be used in a cosmetologically or dermatologically acceptable amount.

The present invention provides a pharmaceutical preparation including the above-specified composition.

The composition may additionally contain pharmaceutical adjuvants, such as preservatives, stabilizers, water-dispersable powder, emulsion accelerators, salts and/or buffers for control of osmotic pressure, etc., and other substances useful for treatment and formulated into various oral or parenteral dosage forms according to the general methods.

Examples of the oral dosage forms include tablets, pills, hard or soft capsules, liquids, suspension, emulsions, syrups, granules, etc., which dosage forms contain dilluents (e.g., lactose, dextrose, sucrose, mannitol, sorbitol, cellulose, and glycine), lubricants (e.g., silica, talc, stearic acid and its magnesium salt or calcium salt, and polyethylene glycol), in addition to the active ingredients. The tablets may further contain a binder, such as magnesium aluminum silicate, starch paste, gelatin, tragacanth gum, methyl cellulose, sodium carboxymetylcellulose, and polyvinylpyrrolidine, and, in some cases, pharmaceutical additives, such as disintegrating agents (e.g., starch, agar, alginic acid or its sodium salt, etc.), absorbents, colorants, flavoring agents, sweetening agents, and

so forth. The tablets may be prepared by general methods including mixing, granulation or coating. Further, the representative examples of the parenteral dosage forms are formulations for injection, preferably isometric aqueous solution or suspension.

Hereinafter, a detailed description will be given as to the construction and effects of the present invention more specifically with reference to Experimental Examples and Examples, which are given only to help the better understanding of the present invention and not intended to limit the scope of the present invention.

<Comparative Example 1> Preparation of *Cymbidium kanran* Extract

950 g of purified water is added to 50 g of the whole plant of *Cymbidium kanran*, which is then subjected to extraction with hot water at 80 ℃ for 12 hours. The extract thus obtained is filtered through a 1μm-filter and concentrated with an evaporator until the amount of the extracted liquid reaches 3.5 g to prepare a sample. 20 μg of the *Cymbidium kanran* extract is used in each of the following Experimental Examples 1 to 3.

<Comparative Example 2> Preparation of *Bletilla striata* Extract

20 g of the whole plant of *Bletilla striata* is mixed with 80 g of a solvent mixture of purified water and glycerin (at

weight ratio of 3:7) and subjected to extraction at 25 °C for 3 days. The extract thus obtained is filtered through a 1μm-filter to prepare a *Bletilla striata* extract. 20 μg of the *Bletilla striata* extract is used in each of the following Experimental Examples 1 to 3.

<Comparative Example 3> Preparation of *Camellia japonica* Extract

The procedures are performed in the same manner as described in Comparative Example 1, excepting that 20 g of the *Camellia japonica* leaves is used in place of the whole plant of *Cymbidium kanran*. 20 μg of the *Camellia japonica* extract is used in each of the following Experimental Examples 1 to 3.

<Comparative Example 4> Preparation of *Opuntia Coccinellifera* Extract

The procedures are performed in the same manner as described in Comparative Example 1, excepting that 20 g of the fruit of *Opuntia Coccinellifera* is used in place of the whole plant of *Cymbidium kanran*. 20 μg of the *Opuntia Coccinellifera* extract is used in each of the following Experimental Examples 1 to 3.

<Comparative Example 5> Preparation of Green Tea Extract

The procedures are performed in the same manner as described in Comparative Example 1, excepting that 20 g of the green tea leaves is used in place of the whole plant of *Cymbidium*

kanran. 20 μg of the green tea extract is used in each of the following Experimental Examples 1 to 3.

<Example 1> Preparation of Mixed Extract of *Cymbidium kanran* and *Bletilla striata*

10 μg of the *Cymbidium kanran* extract from Comparative Example 1 and 10 μg of the *Bletilla striata* extract from Comparative Example 2 are mixed together to prepare a mixed extract of *Cymbidium kanran* and *Bletilla striata*.

<Example 2> Preparation of Mixed Extract of *Cymbidium kanran* and *Camellia japonica*

10 μg of the *Cymbidium kanran* extract from Comparative Example 1 and 10 μg of the *Camellia japonica* extract from Comparative Example 3 are mixed together to prepare a mixed extract of *Cymbidium kanran* and *Camellia japonica*.

<Example 3> Preparation of Mixed Extract of *Cymbidium kanran* and *Opuntia Coccinellifera*

10 μg of the *Cymbidium kanran* extract from Comparative Example 1 and 10 μg of the *Opuntia Coccinellifera* extract from Comparative Example 4 are mixed together to prepare a mixed extract of *Cymbidium kanran* and *Opuntia Coccinellifera*.

<Example 4> Preparation of Mixed Extract of *Cymbidium kanran* and Green Tea

10 μg of the *Cymbidium kanran* extract from Comparative Example 1 and 10 μg of the green tea extract from Comparative

Example 5 are mixed together to prepare a mixed extract of *Cymbidium kanran* and green tea.

<Example 5> Preparation of Mixed Extract of *Cymbidium kanran*, *Bletilla striata*, *Camellia japonica*, *Opuntia Coccinellifera*, and Green Tea

4 μg of the *Cymbidium kanran* extract from Comparative Example 1, 4 μg of the *Bletilla striata* extract from Comparative Example 2, 4 μg of the *Camellia japonica* extract from Comparative Example 3, 4 μg of the *Opuntia Coccinellifera* extract from Comparative Example 4, and 4 μg of the green tea extract from Comparative Example 5 are mixed together to prepare a mixed extract of *Cymbidium kanran*, *Bletilla striata*, *Camellia japonica*, *Opuntia Coccinellifera*, and green tea.

<Experimental Example 1> Evaluation of Free Radical, DPPH

To evaluate the antioxidant effect of the respective extracts prepared in Examples 1 to 5, a comparative evaluation on the DPPH oxidation inhibitory effect is performed through the change of absorbance caused by the reduction of the free radical, 1,3-diphenyl-2-picryl hydrazyl (DPPH) to evaluate the antioxidant ability. In other words, the extracts obtained in Examples 1 to 5 and Comparative Examples 1 to 5 are measured in regards to the decrease in the absorbance caused by the inhibition of the DPPH oxidation with respect to the control, so the concentration with the absorbance 50 % or less of the absorbance of the control is

considered as an effective antioxidant concentration. Each of the control and the individual extracts is measured in regards to the effective antioxidant concentration three times. The average effective antioxidant concentrations and the ratio of the average effective antioxidant concentration of the corresponding extract with respect to the effective antioxidant concentration of the control are presented in Table 1.

[Table 1]

Extract	Active ingredient	Concentration of active ingredient (ppm)	Average effective antioxidant concentration (ppm)	Average effective antioxidant concentration with respect to control (%)
Control	Ethanol	20	0.49	100.00
Comparative Example 1	*Cymbidium kanran*	20	0.33	66.64
Comparative Example 2	*Bletilla striata*	20	0.43	87.20
Comparative Example 3	*Camellia japonica*	20	0.24	48.05
Comparative Example 4	*Opuntia Coccinellifera*	20	0.31	62.60
Comparative Example 5	Green tea	20	0.15	30.93
Example 1	*Cymbidium kanran/ Bletilla striata*	10/10	0.31	61.73
Example 2	*Cymbidium kanran/ Camellia japonica*	10/10	0.22	45.28
Example 3	*Cymbidium kanran/ Opuntia Coccinellifera*	10/10	0.28	57.21
Example 4	*Cymbidium kanran*/green tea	10/10	0.14	27.83
Example 5	*Cymbidium kanran/ Bletilla striata/ Camellia japonica/ Opuntia Coccinellifera*/ Green tea	4/4/4/4/4	0.11	22.64

As shown in Table 1, in comparison of Comparative Example 2 and Example 1, Comparative Example 3 and Example 2, Comparative Example 4 and Example 3, and Comparative Example 5 and Example 4, Examples 1 to 4 that contain the *Cymbidium kanran* extract in combination with another extract are far superior in the antioxidant effect to Comparative Examples 2 to 5 that contain a single extract as an active ingredient.

In particular, Example 4 containing the green tea extract in combination with the *Cymbidium kanran* extract is much excellent in the antioxidant effect than Comparative Example 5 containing the green tea extract as a single active ingredient.

Further, Example 5 containing the *Cymbidium kanran* extract, the *Bletilla striata* extract, the *Camellia japonica* extract, the *Opuntia Coccinellifera* extract, and the green tea extract as multiple active ingredients is most effective in the antioxidant effect.

<Experimental Example 2> Evaluation of TNF-α Inhibitory Effect

To evaluate the TNF-α inhibitory effect of the respective extracts prepared in Examples 1 to 5, an experiment is carried out on the human keratinocyte cell line, HaCaT cell (provided by Korean Cell Line Bank).

HaCaT cells are seeded into 48-well plates at the concentration of 1 x 10^4 cells/well, cultured in a DMEM medium

(Biowhittaker, Cat.#12-604F) containing 10% serum for 24 hours and further cultured in a serum-free medium for 24 more hours. The total protein content in the cultured cells is measured three times and averaged. The cultured cells are washed with PBS once, and 1 μg/ml of LPS with 100 μl of PBS is added to the media other than the control. After removal of the PBS, each sample of the extracts prepared in Examples 1 to 5 and Comparative Examples 1 to 5 other than the control and the untreated group is added at a concentration of 10 μm and put into each well in an amount of 500 μl. In 6 hours after the treatment, each medium is collected and measured in regards to the amount of the TNF-α using a TNF-α ELISA assay kit (BDBiosciences, Cat.#555212) three times. The TNF-α measurements are averaged, and the calculation results are presented in Table 2 and plotted in the graph of FIG. 1.

[Table 2]

Extract	Active ingredient	Concentration of active ingredient (μg)	LPS amount (μg/mL)	Average TNF-α amount (μg/mL)	Average Protein amount (μg/mL)	TNF-α/ Protein	TNF-α/ protein with respect to control (%)
Control	-	-	-	0.2	1060.3	0.00	100.00
Untreated group	-	-	1	1625.9	1377.7	1.18	624060.71
Comparative Example 1	*Cymbidium kanran*	20	1	1465.6	1610.0	0.91	480097.72
Comparative Example 2	*Bletilla striata*	20	1	1537.5	1487.9	1.03	543920.68
Comparative Example 3	*Camellia japonica*	20	1	1411.3	1529.8	0.92	485908.45
Comparative Example 4	*Opuntia Coccinellifera*	20	1	1439.2	1531.0	0.94	495150.75

Comparative Example 5	Green tea	20	1	1328.8	1510.6	0.88	463523.86
Example 1	*Cymbidium kanran*/ *Bletilla striata*	10/10	1	1447.3	1633.3	0.89	466899.44
Example 2	*Cymbidium kanran*/ *Camellia japonica*	10/10	1	1399.4	1615.8	0.87	456825.71
Example 3	*Cymbidium kanran*/ *Opuntia Coccinellifera*	10/10	1	1375.3	1621.4	0.85	446706.83
Example 4	*Cymbidium kanran*/green tea	10/10	1	1359.2	1689.1	0.81	424220.07
Example 5	*Cymbidium kanran*/ *Bletilla striata*/ *Camellia japonica*/ *Opuntia Coccinellifera* / Green tea	4/4/4/4/4	1	1269.3	1608.2	0.79	415650.31

As shown in Table 2 and the graph of FIG. 1, in comparison of Comparative Example 2 and Example 1, Comparative Example 3 and Example 2, Comparative Example 4 and Example 3, and Comparative Example 5 and Example 4, Examples 1 to 4 that contain the *Cymbidium kanran* extract in combination with another extract are far superior in the anti-inflammatory effect to Comparative Examples 2 to 5 that contain a single extract as an active ingredient.

In particular, Example 1 containing the *Bletilla striata* extract in combination with the *Cymbidium kanran* extract is much excellent in the anti-inflammatory effect than Comparative

Example 2 containing the *Bletilla striata* extract as a single active ingredient.

Further, among the compositions containing two natural plant extracts as active ingredients, Example 4 containing the green tea extract in combination with the *Cymbidium kanran* extract is most excellent in the anti-inflammatory effect in the aspect of the TNF-α inhibitory effect.

In addition, Example 5 containing the *Cymbidium kanran* extract, the *Bletilla striata* extract, the *Camellia japonica* extract, the *Opuntia Coccinellifera* extract, and the green tea extract as multiple active ingredients is most effective in the anti-inflammatory effect.

<Experimental Example 3> Evaluation of IL-6 Inhibitory Effect

The procedures are performed in the same manner as described in Experimental Example 2, excepting that the IL-6 amount in each medium rather than the TNF-α amount is measured using a TNF-α ELISA assay kit (BDBiosciences, Cat.#555212) three times to evaluate the IL-6 inhibitory effect. The measurement results are presented in Table 3 and plotted in the graph of FIG. 2.

[Table 3]

Extract	Active ingredient	Concentration of	LPS amount (μg/mL)	Average IL-6 amount (μg/mL)	Average Protein amount (μg/mL)	IL-6/ Protein	IL-6/ protein with respect to

		active ingredient (μg)					control (%)
Control	-	-	-	10.1	1060.3	0.01	100.00
Untreated group	-	-	1	496.3	1377.7	0.36	3826.17
Comparative Example 1	*Cymbidium kanran*	20	1	249.1	1487.9	0.17	1755.88
Comparative Example 2	*Bletilla striata*	20	1	307.9	1610	0.19	1986.17
Comparative Example 3	*Camellia japonica*	20	1	256	1531	0.17	1759.69
Comparative Example 4	*Opuntia Coccinellifera*	20	1	283.3	1510.6	0.19	1950.35
Comparative Example 5	Green tea	20	1	193.6	1510.6	0.13	1347.91
Example 1	*Cymbidium kanran*/ *Bletilla striata*	10/10	1	303.7	1633.3	0.18	1943.97
Example 2	*Cymbidium kanran*/ *Camellia japonica*	10/10	1	245.8	1615.8	0.15	1603.06
Example 3	*Cymbidium kanran*/ *Opuntia Coccinellifera*	10/10	1	262.8	1621.4	0.16	1701.24
Example 4	*Cymbidium kanran*/green tea	10/10	1	184.6	1689.1	0.11	1150.84
Example 5	*Cymbidium kanran*/ *Bletilla striata*/ *Camellia japonica*/ *Opuntia Coccinellifera* / Green tea	4/4/4/4/4	1	151.8	1608.2	0.09	992.87

As shown in Table 3 and the graph of FIG. 2, in comparison of Comparative Example 2 and Example 1, Comparative Example 3 and Example 2, Comparative Example 4 and Example 3, and Comparative Example 5 and Example 4, Examples 1 to 4 that contain the *Cymbidium kanran* extract in combination with another extract are

far superior in the anti-inflammatory effect in the aspect of the IL-6 inhibitory effect to Comparative Examples 2 to 5 that contain a single extract as an active ingredient.

In particular, Example 3 containing the *Opuntia Coccinellifera* extract in combination with the *Cymbidium kanran* extract is much excellent in the anti-inflammatory effect in the aspect of the IL-6 inhibitory effect than Comparative Example 4 containing the *Opuntia Coccinellifera* extract as a single active ingredient.

Further, among the compositions containing two natural plant extracts as active ingredients, Example 4 containing the green tea extract in combination with the *Cymbidium kanran* extract is most excellent in the anti-inflammatory effect in the aspect of the IL-6 inhibitory effect.

In addition, Example 5 containing the *Cymbidium kanran* extract, the *Bletilla striata* extract, the *Camellia japonica* extract, the *Opuntia Coccinellifera* extract, and the green tea extract as multiple active ingredients is most effective in the anti-inflammatory effect in the aspect of the IL-6 inhibitory effect.

WHAT IS CLAIMED IS:

1. A cosmetic composition containing, as active ingredients, a *Cymbidium kanran* extract; and at least one selected from the group consisting of a green tea extract, a *Camellia japonica* extract, a *Bletilla striata* extract, and an *Opuntia Coccinellifera* extract.

2. The cosmetic composition as claimed in claim 1, wherein the *Cymbidium kanran* extract is extracted from the whole plant of *Cymbidium kanran*.

3. The cosmetic composition as claimed in claim 1, wherein the *Bletilla striata* extract is extracted from the whole plant of *Bletilla striata*.

4. The cosmetic composition as claimed in claim 1, wherein the green tea extract is extracted from the leaves of *Camellia Sinensis*.

5. The cosmetic composition as claimed in claim 1, wherein the *Camellia japonica* extract is extracted from the leaves of *Camellia japonica*.

6. The cosmetic composition as claimed in claim 1, wherein the *Opuntia Coccinellifera* extract is extracted from the fruit of *Opuntia Coccinellifera*.

7. The cosmetic composition as claimed in claim 1, wherein the cosmetic composition comprises, with respect to the total weight of the cosmetic composition:

0.0001 wt.% to 10 wt.% of the *Cymbidium kanran* extract; and at least one selected from the group consisting of

0.0001 wt.% to 90 wt.% of the green tea extract,

0.0001 wt.% to 90 wt.% of the *Camellia japonica* extract,

0.0001 wt.% to 10 wt.% of the *Bletilla striata* extract, and

0.0001 wt.% to 90 wt.% of the *Opuntia Coccinellifera* extract.

8. The cosmetic composition as claimed in claim 1, wherein the composition is an antioxidant composition used for entirely cosmetic treatment.

9. The cosmetic composition as claimed in claim 1, wherein the composition is an anti-inflammatory composition used for entirely cosmetic treatment.

10. The cosmetic composition as claimed in claim 1, wherein the composition is formulated using a cosmetologically or dermatologically acceptable medium or base.

11. The cosmetic composition as claimed in claim 1, wherein the composition is formulated in the form of solution, gel, solid, paste anhydrous product, oil-in-water type emulsion, suspension, microemulsion, microcapsule, micro-granules, ionic (liposome) or non-ionic vesicular dispersant, cream, skin toner, lotion, powder, ointment, spray, concealer, foam, or aerosol.